Benefits from Improving the Grid

- Lower impact to global environment
- Avoided water impacts
- Avoided land impacts
- Reduced blackouts (security & well-being)
- Improved quality of life
- Improved access to data
- Better customer experience

Indirect (to third parties)

Societal

- Improved economics for the state
- Increased competitiveness for the state
- Increased employment for the state
- Increased global DER enablement
- Increased transportation electrification enablement

Indirect Value (risk reduction)

- Increased system redundancy
- Improved power quality
- Improved system stability
- Avoided ancillary services

- Improved employee safety
- Reduced chance of environmental incident
- Reduced remediation costs
- Increased public safety

Direct value (captured by customer)

- Avoided business revenue loss
- Avoided equipment damage
- Avoided spoilage

- Avoided ancillary costs (hotel, generator, lost work)
- Increased customer-owned DER enablement
- Decreased energy use or use off peak

Direct value (captured by utility)

- Avoided transmission capacity
- Avoided transmission losses
- Avoided distribution capacity
- Avoided distribution losses
- Avoided generation capacity
- Avoided fuel costs

- Deferred capital cost
- Avoided power purchase
- Lower restoration costs
- Theft reduction
- Improved utility operations (i.e., lower O&M)
- Avoided CO₂
- SO₂ emission reduction
- NO_x emission reduction
- Hg emission reduction
- Particulate matter emission reduction